

STAFF REPORT

LOCALIZED HEALTH IMPACTS REPORT

For Selected Projects Awarded Funding Through the
Alternative and Renewable Fuel and Vehicle Technology
Program Under Solicitation PON-13-606 – Electric Vehicle
Charging Infrastructure



CALIFORNIA
ENERGY COMMISSION

Edmund G. Brown Jr., Governor

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Patrick Brecht
Primary Author

John P. Butler II
Office Manager
***EMERGING FUELS AND TECHNOLOGIES
OFFICE***

Randy Roesser
Deputy Director
FUELS AND TRANSPORTATION DIVISION

Robert P. Oglesby
Executive Director

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Jennifer Allen

Jean Baronas

John Butler

Patrick Brecht

Thanh Lopez

Larry Rillera

Lindsee Tanimoto

PREFACE

The increased use of alternative and renewable fuels supports California's commitment to curb greenhouse gas emissions (GHG), reduce petroleum use, improve air quality, and stimulate the sustainable production and use of alternative fuels within California. Alternative and renewable transportation fuels include electricity, natural gas, biomethane, propane, hydrogen, ethanol, renewable diesel, and biodiesel. State investment is needed to fill the gap and fund the differential cost of these emerging fuels and vehicle technologies.

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). This statute, amended by Assembly Bill 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the California Energy Commission to "develop and deploy innovative technologies that transform California's fuel and vehicle types to help attain the state's climate change policies."

The statute also directs the California Air Resources Board (ARB) to develop guidelines to ensure air quality improvements. The *ARB Air Quality Improvement Program (AQIP) Guidelines*, approved in 2008, are published in the *California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1, AB 118 Air Quality Guidelines for the Alternative and Renewable Fuel and Vehicle Technology Program and the AQIP*. The *AQIP Guidelines* require the Energy Commission, as the funding agency, to analyze the localized health impacts of ARFVTP-funded projects that require a permit (13 CCR § 2343).

The Energy Commission received proposals in response to Program Opportunity Notice PON – 13-606 for electric vehicle charging infrastructure and is considering approving and funding the projects described in this *LHI Report*. This report contains the project and site descriptions (including geographic locations), potential impacts, and benefits. No potential exists for adverse health effects from the nominal increase in criteria emissions from the proposed projects.

ABSTRACT

California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1, § 2343(c)(6), requires the California Energy Commission to consider the localized health impacts when selecting projects for funding. For each funding cycle, the Energy Commission is required to analyze localized health impacts for projects proposed for program funding that require a permit.

This *Localized Health Impacts Report* reviews the project proposals under consideration for funding that were submitted in response to the Electric Vehicle Infrastructure Solicitation PON-13-606 by the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). This *Localized Health Impacts Report* contains project and site descriptions (including geographic locations) and potential impacts, as contained in the proposals.

This *Localized Health Impacts Report* analyzes the aggregated locations of projects, the impacts in communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, as declared by the project proposers or also as determined by Energy Commission staff.

Keywords: Air pollution, air quality, air quality improvement program (AQIP), Air Resources Board (ARB), alternative fuel, Assembly Bill (AB) 118, assessment, biodiesel, California Environmental Quality Act, criteria emissions, demographic, Energy Commission, environmental justice, Environmental Justice Screening Method (EJSM), environmental justice (EJ), greenhouse gas emissions (GHG), localized health impact (LHI), unified school district (USD), electric vehicles supply equipment (EVSE), electric vehicle (EV), plug-in electric vehicle (PEV), multiunit dwelling (MUD)

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EXECUTIVE SUMMARY

Under the *California Code of Regulations Title 13, (CCR § 2343)*, this *Localized Health Impacts Report* describes the alternative fuel infrastructure projects proposed for Alternative and Renewable Fuel and Vehicle Technology Program (ARVTP) funding that may or may not require a conditioned or discretionary permit or environmental review, such as conditional use permits, air quality permits, wastewater permits, hazardous waste disposal permits, and other land-use entitlements. This report does not include projects requiring only residential building permits, mechanical/electrical permits, or fire/workplace safety permits, as these are determined to have no likely impact on the environment.

The California Energy Commission is required to assess the localized health impacts of the projects proposed for ARVTP funding under Electric Vehicle Charging Infrastructure Solicitation PON-13-606. This *Localized Health Impacts Report* focuses on the potential impacts the projects may or may not have on a particular community, particularly those communities that are considered especially vulnerable to emissions increases within their community. For projects located in high-risk communities, this report assesses the impacts from criteria emissions/air toxics, the air quality attainment status, and mitigation plans, if available. This *Localized Health Impacts Report* includes information about the proposer's outreach efforts, including public notices and community outreach.

Environmental justice communities, low-income communities, and minority communities are considered to be the most impacted by any project that could result in increased criteria and toxic air pollutants within an area because these communities typically have the most significant exposure to the emissions. Assessing these projects and the communities surrounding them is important because of the health risks associated with these pollutants. Preventing health issues from air pollution in any community is important, but it is especially important to minimize any negative impacts in communities that are already considered to be at risk due to their continued exposure to these contaminants.

The projects assessed in this report are 35 electric vehicle charging infrastructure projects. During normal operations, none of these facilities generate criteria emissions, particulate matter (PM), or air toxics at any appreciable level. The projects in this *Localized Health Impacts Report* are assessed for potential health impacts for the communities in which they could be located; they vary in terms of socioeconomic factors. Based on this analysis, it is not anticipated that the implementation of the projects will have negative impacts on surrounding communities because there will not be a net increase in criteria and toxic emissions, specifically those communities that are considered most vulnerable. Potentially, the projects stand to provide improved quality of life through cleaner air.

CHAPTER 1:

Projects Proposed for Funding

This chapter summarizes the projects proposed for Energy Commission Funding. The projects in this *LHI Report* are:

Table 1: Descriptions and Proposed Addresses for Chargers

Proposal Number and Proposer	Description of chargers (with estimated number of vehicle sites)	Addresses Identified in Proposal
#47 Vehicle Grid Integration Alliance	25 L2 MUD/Destination chargers in San Francisco	50 Joice Street, 94108 340 Church Street, 94114 355 Fulton Street, 94102 400 Duboce Street, 94117 411 15th Avenue, 94118 500-506 Bartlett Street, 94110 520 Buchanan Street, 94102 601 O'Farrell Street, 94109 621 Stockton Street, 94108 737 Pine Street or 68 Dashiell Hammett Street (dual entrances), 94102 1355 Lombard Street, 94109 1360-1390 Taylor Street, 94108 1440 Sutter Street, 94109 1547 Clay Street, 94109 1656 Leavenworth Street, 94109 1855 10th Avenue, 94122 2038 Divisadero Street, 94115 2238 Hyde Street, 94109 2363 Van Ness Avenue, 94109 3474 17th Street, 94110 3715 California Street, 94118 4540 California Street, 94118

		<p>1290 20th Avenue, 94122</p> <p>1380 Lombard Street, 94109</p> <p>1540 Jones Street, 94102</p>
#46 EV Alliance	39 dual-port L2 Destination chargers for 78 vehicles	<p>Moorpark College, 7075 Campus Road, Moorpark, 93021</p> <p>Parking Lot, 800 Pine Street, Paso Robles, 93446</p> <p>Hearst Castle Visitor Center Parking Lot, 750 Hearst Castle Road, San Simeon, 93452</p> <p>Airport Administration Public Parking, 601 Firestone Road, Santa Barbara, 93117</p> <p>Airline Terminal Public Parking, 500 James Fowler Road, Santa Barbara, 93117</p> <p>Le Point Street Village Parking, Le Point and Mason Streets, Arroyo Grande, 93420</p> <p>City of Carpinteria Parking Lot 1, 4945 Carpinteria Avenue, Carpinteria, 93013</p> <p>City of Carpinteria Parking Lot 3, 499 Linden Avenue, Carpinteria, 93013</p> <p>Buellton City Hall, 107 West Highway 246, Buellton, 93427</p> <p>City of Goleta Parking Lot, 130 Cremona Drive, Goleta, 93117</p> <p>Goleta Valley Community Center Parking Lot, 5679 Hollister Avenue, Goleta, 93117</p> <p>Goleta Branch Library, 500 N. Fairview Avenue, Goleta, 93117</p> <p>Stowe Grove Park, 580 La Patera Lane, Goleta, 93117</p> <p>Telephone Road Building, 4651 Telephone Road, Ventura, 93003</p> <p>Vanguard Building, 1400 Vanguard, Oxnard, 93033</p> <p>Williams Drive Building, 1911 Williams Drive, Oxnard, 93033</p> <p>Todd Road Jail, 600 Todd Road, Santa Paula, 93060</p>

		<p>Fire District Headquarters, 165 Durley, Camarillo, 93010</p> <p>East County Courthouse, 3855 Alamo, Simi Valley, 93063</p> <p>County Government Center, 800 S. Victoria Avenue, Ventura, 93009</p> <p>Juvenile Justice Center, 4333 – 43335 Vineyard Avenue, Oxnard, 93036</p> <p>Isla Vista Parking Lot, 884 Embarcadero Del Mar, Isla Vista, 93117</p> <p>Sheriff Parking Lot, 4436 Calle Real, Santa Barbara, 93110</p> <p>Social Services Parking Lot, 234 Camino Del Remedio, Santa Barbara, 93110</p> <p>Ventura Community Park and Aquatics Center, 901 Kimball Road, Ventura, 93004</p>
#20 Calif. EV Alliance	37 dual-port L2 Destination chargers for 74 vehicles	<p>370 E. L Street, Benicia, 94510</p> <p>Berkeley Marina Parking Lot at Berths J-K, 201 University Avenue, Berkeley, 94710</p> <p>Oxford Parking Garage, 2165 Kittredge Street, Berkeley, 94720</p> <p>Telegraph/Channing Parking Garage, 2450 Durant Avenue, Berkeley, 94704</p> <p>Central Park Boathouse, Central Park, 40000 Paseo Padre Parkway, Fremont, 94538</p> <p>Capitol Avenue between Paseo Padre Parkway and State Street, Fremont, 94538</p> <p>Development Services Center, 39550 Liberty Street, Fremont, 94538</p> <p>20301 Skywest Drive, Hayward, 94541</p> <p>Next to 1304 Oak Avenue, St. Helena, 93574</p> <p>Across from 1325 Railroad Avenue, St. Helena, 93574 Sasol Gateway Transit Center, 625 Burnell Street, Napa, 94559</p> <p>Yountville Public Works Department, 6516 Washington Street, Yountville, 94599</p>

		<p>Community Center, 4516 Washington Street, Yountville, 94599</p> <p>Yountville Park and Ride, Solano Avenue and California Drive, Yountville, 94599</p> <p>Hamilton Landing, Novato, 94949</p> <p>100 Keller Street, Petaluma, 94952</p> <p>Luchessi Community Center, 320 N. McDowell Boulevard, Petaluma, 94954</p> <p>Prince Park, 2301 E. Washington Street, Petaluma, 94954</p> <p>Downtown Parking Garage, 122 Estudillo Avenue, San Leandro, 94577</p> <p>Water Pollution Control Plant, 3000 Davis Street, San Leandro, 94577</p>
#29 City of Burbank	8 L2 curbside Destination chargers, minimum of single-port with possibility of some dual-port chargers, for minimum of 8 vehicles	<p>Johnny Carson Park, 2879 Parkside Avenue, 91505</p> <p>2128 N. Glenoaks Boulevard, 91504</p> <p>164 N. Glenoaks Boulevard, 91502</p> <p>530 S. Glenoaks Boulevard, 91502</p> <p>1024 N. Hollywood Way, 91505</p> <p>Sprouts Farmers Market, 1011 N. San Fernando Boulevard, 91507</p> <p>335 N. Buena Vista Street, 91505</p> <p>3475 Warner Boulevard, 91505</p>
#24 County of Riverside	41 L2 and 4 DCFC Workplace, corridor, and destination chargers for 87 vehicles	<p><u>Workplace Charging:</u></p> <p>Riverside County Regional Medical Center, 26520 Cactus Avenue, Moreno Valley, 92555</p> <p>County Farm DPSS Campus, 4060/4065/4095 County Circle Drive, Riverside, 92503</p> <p>Riverside County Innovation Center, 3450 14th Street, Riverside, 92501</p> <p>Clark Training Center/Sherriff Administration Building, 16971 Davis Avenue, March Air Reserve Base, 92518</p>

		<p>Clark Training Center/Sheriff Administration Building, 16971 Davis Avenue, March Air Reserve Base, 92518</p> <p>Riverside County Department of Public Social Services, 10281 Kidd Street, Riverside, 92503</p> <p>Monroe Conference Center, 44199 Monroe Street, Indio, 92201</p> <p>Myers Mental Health, 3125/3075 Myers Street, Riverside, 92503</p> <p>Riverside Assessor – County Clerk-Recorder, 6221 Box Springs Boulevard, Riverside, 92507</p> <p>Riverside County Sheriff Communication Center, 7195 Alessandro Boulevard, Riverside, 92506</p> <p>Palm Desert Sheriff’s Station, 73705 Gerald Ford Road, Palm Desert, 92260</p> <p>SW Justice Adult Detention Center, 30755-B /C Auld Road, Murrieta, 92563</p> <p>Hemet County Administration Center, 880 N. State Street, Hemet, 92543</p> <p>Corona County Administration, 505 S. Buena Vista Avenue, Corona, 92882</p> <p>Perris Sheriff/Fleet Services, 137 N. Perris Boulevard, Perris, 92570</p> <p>Temecula County Administration Center, 41002 County Center Drive, Temecula, 92562</p> <p>Larry D. Smith Detention Center, 1627 S. Hargrave Street, Banning, 92220</p> <p><u>Corridor Charging:</u></p> <p>Riverside County Fleet Services, 4293 Orange Street, Riverside, 92501</p> <p>Perris Sheriff/Fleet Services, 308 E. San Jacinto Avenue, Perris, 92570</p> <p>Blythe County Administration Center, 240 N. Broadway, Blythe, 92225</p> <p>Cabazon Fleet Services, 50208 Main Street, Cabazon, 92230</p>
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		<p>Temecula County Administration Center, 41002 County Center Drive, Temecula, 92562</p> <p>County Farm DPSS Campus, 4060/4065/4095 County Circle Drive, Riverside, 92503</p> <p>Monroe Conference Center, 44199 Monroe Street, Indio, 92201</p> <p><u>Destination Sites:</u></p> <p>San Jacinto Valley Animal Shelter, 581 S. Grand Avenue, San Jacinto, 92582</p> <p>Riverside Law Library, 3535 10th Street, Riverside, 92501</p> <p>Crestmore Manor, 4600 Crestmore Road, Riverside, 92509</p> <p>Western Riverside County Animal Shelter, 6851 Van Buren Boulevard, Jurupa Valley, 91752</p> <p>Riverside County Fairgrounds, 82503 Highway 111, Indio, 92201</p> <p>Edward Dean Museum and Gardens, 9401 Oak Glen Road, Cherry Valley, 92223</p> <p>Lake Tamarisk Library, 9401 Oak Glen Road, Cherry Valley, 92223</p>
#17 Fremont Chamber of Commerce	10 L2 and 2 DCFC Destination, workplace, and corridor charging	Bayside Business Park, Fremont Boulevard & Warren Avenue, Fremont, 94538
#25 Silicon Valley Leadership Group	39 L2 dual port Destination chargers for 78 vehicles	<p>Campbell Community Center, 1 W. Campbell Avenue, Campbell, 95008</p> <p>Campbell Library/Civic Center, 77 Harrison Avenue, Campbell, 95008</p> <p>Cupertino Library/Civic Center, 10400 Torre Avenue, Cupertino, 95014</p> <p>Cupertino Quinlan Community Center, 10185 N. Stelling Avenue, Cupertino, 95014</p> <p>Cupertino Saich Way Station, Saich Way, Cupertino, 95014</p> <p>Cupertino Main Street, Vallco Parkway, Cupertino, 95014</p>

		<p>Los Gatos Civic Center, 110 E. Main Street, Los Gatos, 95030</p> <p>Los Gatos Downtown Parking Lot 4, Gray's Lane at Boone Lane, Los Gatos, 95032</p> <p>Los Gatos Parks, Pub Wks Center & Creek Trail, 41 Miles Avenue, Los Gatos, 95030</p> <p>Los Gatos Sports Complex, 930 University Avenue, Los Gatos, 95032</p> <p>Menlo Park Civic Center Campus, 701 Laurel Street, Menlo Park, 94025</p> <p>Menlo Park Plaza II, along Oak Grove Avenue between Chestnut and Crane, Menlo Park, 94025</p> <p>Menlo Park Plaza V, behind Santa Cruz Avenue between Evelyn and Crane Street, Menlo Park , 94025</p> <p>Parking Structure, 850 California Street, Mountain View, 94041</p> <p>Palo Alto Cowper-Webster Garage, Lot J, 520 Webster Street, Palo Alto, 94301</p> <p>Palo Alto High Street, Lot R Garage, 528 High Street, Palo Alto, 94301</p> <p>San Mateo County Half Moon Bay Airport, 9850 Cabrillo Hwy North, Half Moon Bay, 94019</p> <p>County of San Mateo, 555 County Center, Redwood City, 94063</p> <p>San Mateo County San Carlos Airport , 620 Airport Drive, San Carlos, 94070</p> <p>Stanford University, Parking Lot 7, 655 Knight Way, Stanford, 94305</p> <p>Stanford University, Parking Lot 2, 401 Quarry Road, Stanford, 94304</p> <p>Stanford University, Parking Oval, End of Palm Drive, Stanford, 94305</p> <p>Stanford University, Parking Structure 6, Wilbur Way, Stanford, 94305</p> <p>Stanford University, Parking Structure 2, 285 Panama Street, Stanford, 94305</p>
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		<p>Sunnyvale City Hall, 456 W. Olive Avenue, Sunnyvale, 94066</p> <p>Sunnyvale Community Center, 550 E. Remington Drive, Sunnyvale, 94087</p> <p>Sunnyvale Main Library, 665 W. Olive Avenue, Sunnyvale, 94086</p> <p>Downtown Sunnyvale Public Parking Lot at S. Frances Street and Evelyn, Sunnyvale, 94086</p>
#5 Redwood Coast Power Authority	10 L2 destination and workplace chargers for 10 vehicles	<p>2700 Dolbeer Street, Eureka, 95501</p> <p>38949 Highway 299, Willow Creek, 95573</p> <p>400 Janis Court, Trinidad, 95570</p> <p>200 Wildwood Avenue, Rio Dell, 95562</p> <p>300 Main Street, Ferndale, 95536</p> <p>600 11th Street, Fortuna, 95540</p> <p>707 L Street, Eureka, 95501</p> <p>1503 City Center Road, McKinleyville, 95519</p> <p>1385 8th Street, Arcata, 95521</p>
#33 BAAQMD	10 DCFC and 12 L2 destination and workplace chargers for at least 22 vehicles	<p><u>Corridor:</u></p> <p>Ohlone Village Shopping Center, 1530 Washington Boulevard, Fremont, 94539</p> <p>Sunol Super Stop, 3004 Andrade Road, Sunol, 94586</p> <p><u>Corridor/Destination/Workplace:</u></p> <p>Graton Resort & Casino, 288 Golf Course Drive West, Rohnert Park, 94928</p> <p><u>Corridor/Workplace:</u></p> <p>Graton Office, 6400 Redwood Drive, Rohnert Park, 94928</p> <p>Alameda Municipal Power, 2000 Grand Street, Alameda, 94501</p> <p><u>Corridor/Destination:</u></p> <p>San Francisco International Airport, Cell Phone Lot, San Francisco International Airport, South San Francisco, 94128</p>

#21 South Coast AQMD	6 DCFC destination/corridor sites for 6 vehicles	100 Civic Center Way, Calabasas, 91302 900 University Avenue, Riverside, 92521 12505 N. Main Street, Rancho Cucamonga, 91739 48400 Seminole Drive, Cabazon, 92230 277 N. Avenida Caballeros, Palm Springs, 92262 73-510 Fred Waring Drive, Palm Desert, 92260
#42 Electric Power Research Institute (EPRI)	2 sets of 12 L2 dual-port destination chargers in multilevel parking garage for 48 vehicles	Tasman Parking Structure, 2525 Tasman Drive, Santa Clara, 95054
#18 CSU Fresno Foundation	Destination charging for CSU, Fresno campus parking areas	Fresno State University Parking Lot V, Fresno, 93710
#23 Good Samaritan Hospital	15 workplace and 9 destination chargers for hospital	1317 Shatto Street, Los Angeles, 90017 636 Lucas Avenue, Los Angeles, 90017
#9 Adopt A Charger	12 L2 destination and workplace chargers for 12 vehicles	8471 N. Coast Hwy, Laguna Beach, 92651 4002 Wallace Street, San Diego, 92110 1245 N. Spring Street, Los Angeles, 90012 12600 N. Torrey Pines Road, San Diego, 92037 21601 Pacific Coast Hwy, Huntington Beach, 92649 17851 Pacific Coast Hwy, Huntington Beach, 92649 1501 Will Rogers Park Road, Pacific Palisades, 90272 750 Hearst Castle Road, San Simeon, 93452 101 N. Big Trees Park Road, Felton, 95016 101 N. Big Trees Road, Felton, 95018 10439 Highway 1, Jenner, 95450 1500 Cloverdale Road, Pescadero, 94060 New Years Creek Road, Pescadero, 94060 Building 201, Fort Mason, San Francisco, 94123-0022
#3 Los Angeles Department of Water	100 L2 destination chargers for 100 vehicles	Robertson Parking Garage, 123 S. Robertson Boulevard, Los Angeles, 90048

and Power (LADWP)		<p>Larchmont Village Plaza, 218 N. Larchmont Boulevard, Los Angeles, 90004</p> <p>Cherokee Parking Structure, 1710 N. Cherokee Avenue, Hollywood, 90028</p> <p>Vine Parking Structure, 1627 N. Vine Street, Hollywood, 90028</p> <p>Hollywood and Highland, 6801 Hollywood Boulevard, Hollywood, 90028</p> <p>Little Tokyo Parking Structure, 101 N. Judge John Aiso Street, Los Angeles, 90012</p> <p>Venice Beach Surface Lot, 200 N. Venice Boulevard, Los Angeles, 90291</p> <p>Westwood Village Parking Structure, 1036 Broxton Avenue, Los Angeles, 90024</p> <p>Chatsworth Branch Library, 21052 Devonshire Street, Chatsworth, 91311</p> <p>Exposition Branch Library, 3900 S. Western Avenue, Los Angeles, 90062</p> <p>Mid-Valley Branch Library, 16244 Nordhoff Street, North Hills, 91343</p> <p>Northridge Branch Library, 9051 Darby Avenue, Northridge, 91352</p> <p>Pio Pico Koreatown Branch Library, 694 S. Oxford Avenue, Los Angeles, 90005</p> <p>Silver Lake Branch Library, 2411 Glendale Boulevard, Los Angeles, 90039</p> <p>World Way West, 7301 World Way West, Los Angeles, 90045</p> <p>Flight Path Museum, 6661 West Imperial Highway, Los Angeles, 90045</p> <p>LAX – Lot C, 96th Street and Sepulveda Boulevard, Los Angeles, 90045</p> <p>Terminals 2 & 4, 2500 E. Airport Drive, Ontario, 91761</p>
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		<p>Harbor Area Community Police Station, 2175 John S. Gibson Boulevard, Wilmington, 90744</p> <p>Hollenbeck Area Community Police Station, 2111 E. First Street, Los Angeles, 90012</p> <p>Mission Area Community Police Station, 11121 Sepulveda Boulevard, Mission Hills, 91345</p> <p>Newton Area Community Police Station, 3400 S. Central Avenue, Los Angeles, 90011</p> <p>North Hollywood Area Community Police Station, 11640 Burbank Boulevard, North Hollywood, 91601</p> <p>Olympic Area Community Police Station, 1130 S. Vermont Avenue, Los Angeles, 90006</p> <p>Pacific Area Community Police Station, 12312 Culver Boulevard, Los Angeles, 90066</p> <p>Rampart Area Community Police Station, 1401 W. 6th Street, Los Angeles, 90017</p> <p>Topanga Area Community Police Station, 21501 Schoenborn Street, Canoga Park, 91304</p> <p>Valley Bureau and Valley Traffic Division, 7870 Nollan Place, Los Angeles, 91402</p> <p>West Valley Area Community Police Station, 10920 Vanowen Street, North Hollywood, 91605</p>
#40 US Green Vehicle Council	10 DCFC corridor charging at hotels sites for 10 vehicles	<p>Holiday Inn Express- Santa Nella, 28976 Plaza Drive, Santa Nella Village, 95322</p> <p>Best Western Big Country Inn, 25020 W. Dorris Avenue, Coalinga, 93210</p> <p>Days Inn- Lost Hills, 14684 Aloma Street, Lost Hills, 93249</p> <p>Microtel Inn & Suites by Wyndham (60 miles from Lost Hills), 5620 Del Sol Drive, Wheeler Ridge, 93203</p> <p>Courtyard Marriott (48 miles from Wheeler Ridge), 28523 Westinghouse Place, Los Angeles, 91355</p> <p>Holiday Inn- Oceanside, 1401 Carmelo Drive, Oceanside, 92054</p>

		<p>Holiday Inn Express- Stockton, 5045 Kingsley Road, Stockton, 95215</p> <p>Courtyard Marriott Hotel, 750 Motel Drive, Merced, 95340</p> <p>Holiday Inn Express Fresno, 7191 Kathryn West, Fresno, 93722</p> <p>Hampton Inn & Suites Tulare, 1100 N. Cherry Street, Tulare, 93274</p>
#10 San Joaquin Valley Unified APCD	8 L2 workplace chargers for 8 vehicles	<p>1990 E. Gettysburg Avenue, Fresno, 93726</p> <p>4800 Enterprise Way, Modesto, 95356</p> <p>34946 Flyover Court, Bakersfield, 93308</p>
#13 Golden Gate National Parks Conservancy	4 L2 and 2 L1 destination and workplace charging for Fort Mason and Stinson Beach	<p>201 Fort Mason, San Francisco, 94123</p> <p>4900 Shoreline Highway 1, Stinson Beach, 94970</p>
#43 City of San Diego	41 L2 destination chargers for 68 vehicle sites	<p>On the street on Reed Avenue (north side) between Cass and Davies, 92109</p> <p>Mission Bay Aquatic Center, 1001 Santa Clara Place, 92109</p> <p>On the street at 35th and Adams Avenue, 92116</p> <p>Nobel Park Athletic area and North University Community Library, 92122</p> <p>Rancho Bernardo Glassman Community Park, 92127</p> <p>Carmel Valley Community Park, 92130</p> <p>Otay Mesa Library, 3003 Coronado Avenue, San Diego, 92154</p> <p>On the street at Normal and University Avenue, 92103</p> <p>Skyline Hills, 92114</p>
#15 County of San Diego	35 L2 Destination/workplace chargers for 35 vehicles	<p>124 S. Mission Road, Fallbrook, 92028</p> <p>1668D 4S Ranch Parkway, San Diego, 92147</p> <p>10124 Old Grove Road, San Diego, 92131</p> <p>3851 Rosecrans Street, San Diego, 92110</p>

		1275 Main Street, Ramona, 92065 325 S. Melrose Drive, Vista, 92081 500 3 rd Avenue, Chula Vista, 91910 590 3 rd Avenue, Chula Vista, 91910 5500 Overland Avenue, San Diego, 92123 1600 Pacific Coast Highway, San Diego, 92101
#22 City of Corona	9 L2 dual-port destination/workplace chargers for 18 vehicles	12565 Corona Pointe, Corona, 92879 2785 Lakeshore Drive, Corona, 92883 4160 Temescal Canyon Road, Corona, 92883
#4 Southern California Public Power Authority	4 L2 and 9 DCFC destination/corridor sites for 14 vehicles	2626 E. Katella Avenue, Anaheim, 92806 Citrus Avenue/Alosta Avenue, Azusa, 91702 2140 W. Ramsey Street, Banning, 92220 343 North Pass Avenue, Burbank, 91505 18125 Bloomfield Avenue, Cerritos, 90703 1405 E. Washington Street, Colton, 92324 400 N. Pepper Avenue, Colton, 92324 121 S. Church Lane, Los Angeles, 90049 27110 Eucalyptus Avenue, Moreno Valley, 92555 175 N. Raymond Avenue, Los Angeles, 91103 8095 Lincoln Avenue, Riverside, 92504
#8 Cal Poly Corporation	6 L2 dual-port destination chargers for 12 vehicles	1 Grand Avenue, San Luis Obispo, 93407 Bonderson Parking Lot H2 Grand Avenue Parking Structure 130
#30 CALSTART	38 L2 destination chargers	Several parking areas around Disneyland in Anaheim, 92802: Mickey and Friends Parking Disneyland Hotel Downtown Disney District Disney's Grand Hotel and Spa Disney's Paradise Pier Hotel

		<p>Simba Parking Lot</p> <p>Toy Story Parking Lot</p>
#44 City of Coronado	10 L2 destination chargers	<p>2 parking areas on Coronado, 92118:</p> <p>Coronado Rotary Plaza</p> <p>Coronado Cays Park</p>
#35 El Dorado County	5 L2 dual-port destination/corridor chargers for 10 vehicles	<p>330 Fair Lane, Placerville, 95667</p> <p>1360 Johnson Boulevard, South Lake Tahoe, 96150</p>
#2 LA County MTA	20 L2 destination chargers at park-and-ride sites for 20 vehicles	<p>Redondo Beach Station, 2406 Marine Avenue/5301 Marine Avenue, Hawthorne, 90278</p> <p>Norwalk Station, 12901 Hoxie Avenue, Norwalk, 90650</p> <p>Canoga Station, 6770 Canoga Avenue, Canoga Park, 91303</p> <p>Chatsworth Station, 21501 Lassen Street, Los Angeles, 91311</p> <p>La Cienega/Jefferson Station, 5664 W. Jefferson Boulevard, Los Angeles, 90016</p> <p>Union Station, 801 N. Vignes Street, Los Angeles, 90012</p>
#26 City of Torrance	6 DCFC corridor chargers for 6 vehicles	<p>Charles Wilson Park, 2200 Crenshaw Boulevard, Torrance, 90501</p> <p>Columbia Park, 4045 190th Street, Torrance, 90504</p> <p>Downtown, 1332 Post Avenue, Torrance, 90501</p> <p>Katy Geissert Library-Civic Center, 3301 Torrance Boulevard, Torrance, 90503</p> <p>Walteria Library and Park, 3855 242nd Street, Torrance, 90505</p> <p>McMaster Park-Library- Police Substation, 3624 Artesia Boulevard, Torrance, 90504</p>
#41 Clean Fuel Connection	50 L2 Workplace/destination chargers for 50 vehicles	<p>Kaiser Permanente, 6650 Alton Parkway, Irvine, 92604</p> <p>Kaiser Permanente, 1600 Eureka Road, Roseville, 95661</p>

		<p>Kaiser Permanente, 3440 E. La Palma Avenue, Anaheim, 92806</p> <p>Kaiser Permanente, 5601 De Soto Avenue, Los Angeles, 91365</p> <p>Kaiser Permanente, 2200 O' Farrell Street, San Francisco, 94118</p>
#31 American Honda Motor Company, Inc.	116 L2 workplace chargers for 116 vehicles	1919 Torrance Boulevard, Torrance, 90501
#7 US Hybrid Corporation	2 L2 and 1 DCFC workplace chargers for 3 vehicles	445 Maple Avenue, Torrance, 9050
#37 State of California, Department of Transportation	22 L2 workplace chargers for 22 vehicles	<p>1650 Albee Street, Eureka, 95501</p> <p>6100 N. Highway 101 Eureka, 95501</p> <p>1430 George Drive, Redding, 96003</p> <p>1403 Furneaux Road, Olivehurst, 95961</p> <p>981 N. Beale Road, Marysville, 95901</p> <p>1993 Marina Boulevard, San Leandro, 94577</p> <p>San Francisco Office Bay Bridge Toll Plaza, Oakland, 94609</p> <p>100 Industrial Boulevard, Benicia, 94510</p> <p>34th Street & Stockton Boulevard, Sacramento, 95816</p> <p>1603 S. B Street, Stockton, 95206</p> <p>1604 S. B Street, Stockton, 95206</p> <p>1385 N. West Avenue, Fresno, 93728</p> <p>66 Madonna Road, San Luis Obispo, 93401</p> <p>13204 Golden State Road, Sylmar, 91342</p> <p>320 S. Sierra Way, San Bernardino, 92408</p> <p>6685 Marine Way, Irvine, 92618</p> <p>1090 Bristol Street, Costa Mesa, 92626</p> <p>1808 N. Batavia Avenue, Orange, 92685</p> <p>691 S. Tustin Street, Orange, 92866</p> <p>8502 Railroad Avenue, Santee, 92071</p>

		7179 Opportunity Road, San Diego, 92111 7181 Opportunity Road, San Diego, 92111
#14 Bio-Rad Laboratories	21 workplace chargers for 22 vehicles	1000 Alfred Nobel Drive, Hercules, 94547 2000 Alfred Nobel Drive, Hercules, 94547 4000 Alfred Nobel Drive, Hercules, 94547 6000 Alfred Nobel Drive, Hercules, 94547 825 Alfred Nobel Drive, Hercules, 94547 875 Alfred Nobel Drive, Hercules, 94547 235 Linus Pauling, Hercules, 94547 5500 E. 2nd Street, Benicia, 94510 5731 W. Las Positas, Pleasanton, 94588 9500 Jeronimo; 21 Technology Drive, Irvine 92618
#32 Ontario CNG Station Inc.	2 DCFC workplace chargers for 2 vehicles	1850 E. Holt Boulevard, Ontario, 91761
#45 Granville Homes	3 L2 dual-port MUD chargers for 6 vehicles	Fulton Village, 1759 Fulton Street, Fresno, 93721

Source: Energy Commission staff analysis

CHAPTER 2: Approach, Definitions, and Projects Proposed for Funding

The California Energy Commission, through the Alternative and Renewable Fuels and Vehicle Technology Program (ARFVTP), released a competitive Grant Solicitation and Application Package on November 8, 2013. The application due date was February 4, 2014. Grant Solicitation PON-13-606 sought to fund electric vehicle charging infrastructure projects in destination, corridor, workplace, and multiunit dwelling sites.

During normal operations, none of these facilities generate criteria emissions, particulate matter (PM), or air toxics at any appreciable level.

The Energy Commission is required to analyze and publish this *LHI Report* for public review and comment for a period of 30 days. Based on the Energy Commission's interpretation of the *Air Quality Improvement Program (AQIP) Guidelines*, this *LHI Report* provides information about the communities surrounding the potential project sites and assesses the potential impacts to public health in those communities as a result of the project. This report is prepared under the *California ARB AQIP Guidelines, California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1 (CCR § 2343)*:

“(6) Localized health impacts must be considered when selecting projects for funding. The funding agency must consider environmental justice consistent with state law and complete the following:

(A) For each fiscal year, the funding agency must publish a staff report for review and comment by the public at least 30 calendar days prior to approval of projects. The report must analyze the aggregate locations of the funded projects, analyze the impacts in communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, and identify agency outreach to community groups and other affected stakeholders.

(B) Projects must be selected and approved for funding in a publicly noticed meeting.”

This *LHI Report* is not intended to be a detailed environmental health or impact analysis of projects potentially to be funded by the program nor is this assessment intended to be a substitute for the comprehensive environmental review conducted by regulatory agencies during the California Environmental Quality Act (CEQA) review. The application of CEQA would provide a more detailed analysis of the potential for adverse environmental effects of the proposed projects.

This report collects available information about the potential air quality impacts of the proposed projects and provides a collective, narrative analysis of the potential for localized health effects from those projects. The *AQIP Guidelines* mandate that the Energy Commission tracks the progress of the projects through the CEQA process and ensures a commitment exists from the proposers to complete all mitigation measures required by the permitting agency before they receive the first funding allocation.

Staff reviewed results from the Environmental Justice Screening Method (EJSM) to identify projects located in areas with social vulnerability indicators and the greatest exposure to air pollution and associated health risks.¹ The EJSM was developed to identify low-income communities highly affected by air pollution for assessing the impacts of climate change regulations, specifically Assembly Bill 32 (Núñez/Pavley, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006.

The EJSM identifies the various levels of risk in regions throughout California, and high-risk communities are considered especially vulnerable to even the smallest impacts. The EJSM integrates data on exposure to air pollution, cancer risk, ozone concentration and frequency of high ozone days, race/ethnicity, poverty level, home ownership, median household value, educational attainment, and sensitive populations (populations under 5 years of age, or over 65 years of age).

The ARB applied the method to the San Francisco Bay Area, San Joaquin Valley, and California's desert region. However, the results consider only income among the list of social vulnerability indicators. For communities not yet assessed in the EJSM, the Energy Commission identifies high-risk areas as those in nonattainment basins for ozone, particle pollution, or particulate matter (PM) 2.5 and PM 10, along with populations that have high poverty and minority rates as well as a high percentage of sensitive populations.

This *LHI Report* contains detailed assessments for projects proposed to be located in a low-income community that is highly impacted by air pollution. The reasons this *LHI Report* contains detailed assessment for these communities is that the populations within these communities are presumed to be most susceptible to health risks because of their exposure to criteria and toxic air pollutants on a more continual basis as compared with other geographic regions.

¹ California Air Resources Board (ARB), *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making*, 2010. (Sacramento, California) Contract authors: Manuel Pastor Jr., Ph.D., Rachel Morello-Frosch, Ph.D., and James Sadd, Ph.D.

Permits

For this assessment, the Energy Commission interprets “permits” to connote discretionary and conditional use permits because they require a review of potential impacts to a community and the environment before issuance. For air permits, local air districts conduct a New Source Review (NSR) to determine the emission impacts. Since ministerial-level permits, such as building permits, do not assess public health-related pollutants, the Energy Commission staff does not assess projects requiring only ministerial-level permits in this report. An overview of the permit requirements for identified projects potentially to be located in at risk communities is included in the project overviews in this *LHI Report*.

Incremental increases in criteria emissions must be reduced or mitigated through a pollution control standard known as Best Available Control Technologies (BACT), and possibly, Emission Reduction Credits (ERC), which are granted upon request by an emission source.² An NSR determines if a modification to an existing station or construction of a new station will result in significant increased air emissions within a given region. All projects in this report are electric vehicle charging stations on developed property, primarily parking areas.

Demographic Data

Staff collected information on ethnicity, age, and income for the city/community where the potential project, if funded, would be located. The information identifies those communities with higher minority populations, lower incomes, and highly sensitive groups based on age. For this assessment, staff identifies sensitive populations as individuals younger than 5 years of age and older than 65 years of age. The demographic data for the proposed project sites is provided.

Petroleum Displaced and Emissions

Staff collected information about estimated petroleum displacement, in equivalent gasoline gallons that would not be used as a result of electric vehicle miles of travel provided by the electric vehicle chargers. There are no emissions associated with the projects in this report.

Community Status of Proposed Projects

The following community status descriptions for the proposed projects are based on the ARB *Proposed Screening Method*, which integrates data to identify low-income communities that are

² California Air Resources Board (ARB), *Air Quality Guidance for Siting Biorefineries in California*, 2012 (Sacramento, California) <http://www.arb.ca.gov/fuels/lcfs/bioguidance/bioguidance.htm>

highly impacted by air pollution.³ The California State Implementation Plans (<http://www.arb.ca.gov/planning/sip/sip.htm>) are used as a source for public notices for attainment plans. The *Green Book Nonattainment Areas for Criteria Pollutants* (<http://www.epa.gov/oaqps001/greenbk>) is also used as an information source for this assessment.

³ California Air Resources Board (ARB), *Proposed Screening Method for Low-Income Communities Highly Impacted by Air Pollution*, 2010 (Sacramento, California).

CHAPTER 3:

Location Analysis and Community Impacts

Based on staff's assessment of the proposed projects, it is expected that none of the surrounding communities would be disproportionately impacted by the implementation of the projects. For this *LHI Report*, environmental justice (EJ) indicators are evaluated as follows:

- A minority EJ is indicated if a minority subset represents more than 30 percent of a given city's population.
- A poverty level EJ is indicated if a city's poverty level exceeds the state of California's poverty level (for the entire state – 15.3 percent).
- An unemployment EJ is indicated if a given city's unemployment rate exceeds the state of California's unemployment rate (for the entire state – 8.5 percent).
- An EJ indicator is also noted for cities where the percentage of persons younger than 5 years of age or older than 65 years of age is 20 percent higher than the average of the percentage of persons under 5 years of age or over 65 years of age for the entire state. (For the entire state, the percentage of persons under the age of 5 years is 6.7 percent, and the percentage of persons over the age of 65 years is 12.1 percent.)

Of the 128 proposed cities, 69 have minority EJ indicators. The poverty EJ indicator exists in 43 locations and 42 have unemployment EJ indicators. The age EJ indicator exists in 2 proposed cities. The proposed projects are expected to have a net benefit by reducing emissions and leading to improved air quality. While overall air quality depends on a number of factors, the Energy Commission expects that air quality will improve over time where the chargers are proposed as they support growing numbers of electric vehicles. Appendix A of this *LHI Report* covers the cities with EJ indicators which are described as minority EJ, poverty level EJ, unemployment EJ, and age EJs.

CHAPTER 4:

Summary

If funded, the proposed projects would potentially result in up to 321 different sites for electric vehicle charging. The addresses for the sites on which the chargers may be located are listed in Chapter 1. The sites will increase the widespread use of plug-in electric vehicles (PEVs). As more PEVs enter the market and begin to displace gasoline and diesel vehicles, tailpipe pollutants will decrease significantly.

The anticipated impacts to the cities where these projects would be located are positive in terms of cleaner air and anticipated GHG reductions.

Of the 128 cities listed in Appendix B that are associated with the potential sites, 38 have no EJ indicators, 48 have one EJ indicator, 18 have two indicators, 24 have three indicators, and 0 have four EJ indicators. The anticipated benefit from these projects for the people who live in these cities is highly likely, if not certain, to be positive. More demographics for the cities are contained in Appendix B. Appendix B contains information on persons below the poverty level, black persons, American Indian and Alaska Native, persons of Hispanic or Latino origin, white persons and persons under 5 years of age and over 65 years of age. The unemployment rates for the various cities are also given in Appendix B.

Table 2: Percentage of Cities with EJ Indicators

	128 Cities	Percent
No EJ Indicators	38	29.7
One EJ Indicator	48	37.5
Two EJ Indicators	18	14.0
Three EJ Indicators	24	18.8
Four EJ Indicators	0	0
		100.0 Total

Source: Energy Commission staff analysis

CHAPTER 5:

Acronyms

Air Quality Improvement Program (AQIP)
Air Quality Management District (AQMD)
Air Resources Board (ARB)
Alternative Fuel Vehicle (AFV)
Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP)
American Society for Testing and Materials (ASTM)
Best Available Control Technologies Act (BACT)
California Code of Regulations (CCR)
California Energy Commission (Energy Commission)
California Environmental Quality Act (CEQA)
Direct Charge Fast Charger (DCFC)
Emission reduction credits (ERC)
Environmental justice (EJ)
Environmental justice screening method (EJSM)
Greenhouse gas (GHG)
Fiscal year (FY)
Level 1 charger (L1)
Level 2 charger (L2)
Localized health impact (LHI)
Multi-Unit Dwelling (MUD)
New Source Review (NSR)
Plug-in Electric Vehicle (PEV)
Particulate matter (PM)
Program Opportunity Notice (PON)
United States Environmental Protection Agency (U.S. EPA)
Volatile organic compound (VOC)

APPENDIX A: Cities with EJ Indicators

Color highlighted areas indicate numbers that meet the definitions for EJ Indicators.

	Below poverty line	Ethnicity					Age		Unemployment rate
		Black	American Indian	Asian and/or Pacific Islander	Hispanic	White	<5 years	>65 years	
California	15.3	6.6	1.7	13.9	38.2	39.4	6.7	12.1	8.5
Alameda	9.4	6.4	0.6	31.2	11	45.3	5.7	13.5	4.5
Anaheim	15.6	2.8	0.8	14.8	52.8	27.5	7.7	9.3	7.5
Arcata	33.7	2	2.3	2.8	11.6	76.3	3.6	8.2	8
Bakersfield	19.3	8.2	1.5	6.3	45.5	37.8	9	8.4	8.7
Banning	19.4	7.3	2.2	5.3	41.1	43.4	6.2	25.9	10.9
Berkeley	18.1	10	0.4	19.5	10.8	54.7	3.7	11.7	6.3
Blythe	16.1	15	1.2	1.7	53.2	28.3	5.3	8.6	11.5
Cabazon	N/A	5.3	3.6	2	45	69	9.8	8.3	24.3
Canoga Park*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Carpenteria	8.1	0.8	1.1	2.4	48.7	46.6	5.8	13.8	3.5
Cerritos	5.7	6.9	0.3	62.2	12	16.6	3.9	17.7	4.8
Chatsworth*	18.5	0.9	1.3	1.1	92.5	5.3	8	8.4	N/A
Chula Vista	10.4	4.6	0.8	15	58.2	20.4	7.2	10	8.1
Cloverdale	5.9	0.6	1.8	1.2	32.8	62.5	6.6	16	9.5
Coalinga	23.6	4.1	1.3	3.3	53.5	37.7	8	7.9	14.7
Colton	22.5	9.7	1.3	5.3	71	13	9.4	7	10.1
Corona	9.9	5.9	0.8	10.3	43.6	38.1	7.4	7.3	4.4
Costa Mesa	14.1	1.5	0.6	8.4	35.8	51.8	6.5	9.2	5.2
Cupertino	4.2	0.6	0.2	63.4	3.6	29.3	5.4	12.5	3.9
Eureka	22.1	1.9	3.7	4.8	11.6	73.9	6.1	11.8	9.1
Fallbrook	14.6	1.6	0.8	2.1	45.2	49.1	7.4	13.9	8.9
Fortuna	20.2	0.6	3.7	1	17	74.8	7.1	17.3	7.6
Fresno	27.5	8.3	1.7	12.8	46.9	30	8.9	9.3	12.7
Goleta	7.4	1.6	0.9	9.2	32.9	53.6	5.5	13.5	3.5
Guerneville	N/A	0.7	1.5	1.3	12.2	86.6	3.51	13.5	12.2
Half Moon Bay	7.6	0.7	0.6	4.4	31.6	61.6	6.3	15.6	5.1
Hawthorne	18.9	27.7	0.7	7.9	52.9	10.3	8	7.4	11.6
Hayward	13.5	11.9	1	25.1	40.7	18.8	7.5	10.2	7.4
Hemet	21.2	6.4	1.6	3.4	35.8	51.8	7.2	22.1	12

Hercules	6.2	18.9	0.4	45.9	14.6	16.7	5.8	10.5	5
Hollywood*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Indio	21.8	2.4	1	2.3	67.8	27	8.5	12.4	10.3
Irvine	11.4	1.8	0.2	39.4	9.2	45.1	5.7	8.7	4.4
Isla Vista	59.8	2.6	0.5	14.9	22.8	55.7	1.2	1.3	9.7
Jurupa Valley	16.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Los Angeles	21.2	9.6	0.7	11.4	48.5	28.7	6.6	10.5	9.8
Lost Hills	N/A	0.2	0.04	0.7	97.6	5.4	14.3	2.5	24.1
March Air Reserve Base	N/A	14.7	0.9	3.2	14.8	69.9	3.7	48.8	9.6
Marysville	26.4	4.3	2.5	4.4	24.2	61.3	7.7	12	12.4
McKinleyville	13.2	0.7	4.6	1.5	7.1	82.4	6.7	12.4	9.9
Merced	27	6.3	1.5	12	49.6	30	9.4	8.8	15.9
Mission Hills	N/A	2.5	2	3.7	31.8	75.2	6.1	14.7	8.5
Modesto	19.5	4.2	1.2	7.3	35.5	49.4	7.4	11.7	11.5
Moreno Valley	19.6	18	0.9	6.7	54.4	18.9	8.4	6.3	11
Napa	11.3	0.6	0.8	2.5	37.6	57.2	6.6	13.6	6.4
North Hills*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
North Hollywood*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Northridge*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Norwalk	12.3	4.4	1.1	12.4	70.1	12.3	7	9.9	9.4
Oakland	20.3	28	0.8	17.4	25.4	25.9	6.7	11.1	10.2
Oceanside	11.8	4.7	0.8	7.9	35.9	48.4	7	12.9	6.6
Olivehurst	22.5	2.4	2.9	6.1	36.6	49.1	8.8	8.4	19.3
Ontario	16.4	6.4	1	5.5	69	18.2	8.4	6.7	9.9
Orange	10.7	1.6	0.7	11.6	38.1	46.8	6.4	10.7	5.4
Oxnard	15.9	2.9	1.5	7.7	73.5	14.9	8.9	8.3	9.9
Pacific Palisades*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Palm Desert	9.2	1.8	0.5	3.5	22.8	70.4	4.2	32.9	5.6
Palm Springs	15.9	4.4	10	4.6	25.3	63.6	3.9	26.5	7.3
Paso Robles	12.2	2.1	1	2.2	34.5	59.1	7.8	13.4	7.4
Perris	28.2	12.1	0.9	4.5	71.8	11	10	4.9	14.9
Pescadero	N/A	0.3	0.3	0.8	62.5	48.8	7.3	12.3	N/A
Placerville	15.9	0.8	1.6	1	17.9	76.4	6.4	17.7	12.4
Ramona	13.4	0.7	1.1	1.7	31.2	64	6.9	10.1	6.4
Rancho Cucamonga	5.8	9.2	0.7	10.7	34.9	42.7	6.2	7.9	6
Redding	18.1	1.2	2.3	5.7	8.7	81.3	6.3	16.4	9.6

Redwood City	9.1	2.4	0.7	11.7	38.8	44	7.5	10.6	5
Rio Dell	N/A	0.4	3.7	0.7	11.4	85	6.9	13	14
Riverside	17.5	7	1.1	7.8	49	34	7.2	8.6	9.6
Sacramento	20.2	14.6	1.1	19.7	26.9	34.5	7.5	10.6	9.6
San Bernardino	30.6	15	1.3	4.4	60	19	9.3	7.9	12.6
San Diego	15.4	6.7	0.6	16.4	28.8	45.1	6.2	10.7	6.9
San Francisco	13.2	6.1	0.5	33.7	15.1	41.9	4.4	13.6	5.2
San Jacinto	18.9	6.6	1.8	3.3	52.3	35.1	8.8	10.6	14.5
San Leandro	8.5	12.3	0.8	30.5	27.4	27.1	6.2	13.8	6.6
San Luis Obispo	30.5	1.2	0.6	5.3	14.7	75.8	3.3	12	6.8
San Simeon	N/A	0.9	1	2	55.8	58.4	8	18	N/A
Santa Barbara	14.7	1.6	1	3.6	38	54.8	5.5	14.2	5
Santa Cruz	20.9	1.8	0.7	7.9	19.4	66.7	3.9	8.8	9.1
Santa Nella Village	N/A	1.6	1.8	2.25	70	60	8	6.7	N/A
Santa Paula	17.3	0.5	1.6	0.8	19.5	18.5	8.7	10.6	12.1
South Lake Tahoe	17.5	0.9	1.1	5.7	31.1	59.9	6.3	9.8	11.4
St. Helena	7.2	0.4	0.6	1.9	32.9	63.4	5.4	19.3	6.6
Stanford	19.8	4.7	0.6	27.6	10.4	50.2	2.9	4.5	N/A
Stockton	23.3	12.2	1.1	22.1	40.3	22.9	8.4	10	15.9
Sylmar*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Torrance	7.4	2.7	0.4	34.9	16.1	42.3	5.2	14.9	4.4
Tulare	20.2	3.9	1.2	2.3	57.5	34.7	9.4	9	12.9
Ventura	10.3	2.2	1.8	7.6	41.2	47.7	6.6	12.6	N/A
Vista	15.2	3.3	1.2	4.9	48.4	408	8	9.2	7.8
Wilmington*	21.2	9.6	0.7	11.4	48.5	28.7	6.6	10.5	9.8

Source: Energy Commission staff analysis

* Community associated with urban area.

APPENDIX B: Demographic Data

Table B-1: Demographic Data for Cities

	Below poverty line	Ethnicity					Age		Unemployment rate
		<i>Black</i>	<i>American Indian</i>	<i>Asian and/or Pacific Islander</i>	<i>Hispanic</i>	<i>White</i>	<i><5 years</i>	<i>>65 years</i>	
California	15.3	6.6	1.7	13.9	38.2	39.4	6.7	12.1	8.5
Alameda	9.4	6.4	0.6	31.2	11	45.3	5.7	13.5	4.5
Anaheim	15.6	2.8	0.8	14.8	52.8	27.5	7.7	9.3	7.5
Arcata	33.7	2	2.3	2.8	11.6	76.3	3.6	8.2	8
Arroyo Grande	7.2	0.9	0.7	3.5	15.7	76.9	4.9	20.2	6.3
Bakersfield	19.3	8.2	1.5	6.3	45.5	37.8	9	8.4	8.7
Banning	19.4	7.3	2.2	5.3	41.1	43.4	6.2	25.9	10.9
Benicia	5.5	5.6	0.5	11.5	12	66.1	4.8	12.5	4.9
Berkeley	18.1	10	0.4	19.5	10.8	54.7	3.7	11.7	6.3
Blythe	16.1	15	1.2	1.7	53.2	28.3	5.3	8.6	11.5
Bodega Bay	N/A	0.2	0.4	3.43	11.7	88	3.25	30	4.4
Buellton	N/A	0.8	1.6	2.9	28	69	6.6	13	5.2
Burbank	8.5	2.5	0.5	11.7	24.5	58.3	5	13.3	7.2
Cabazon	N/A	5.3	3.6	2	45	69	9.8	8.3	24.3
Calabasas	6.2	1.6	0.2	8.6	6.4	79.5	4.9	12.6	4
Camarillo	5.9	1.9	0.6	10.4	22.9	61.8	5.7	17.2	5.1
Campbell	6.7	2.9	0.7	16.5	18.4	58.1	6.6	11.2	5.2
Canoga Park*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Carpenteria	8.1	0.8	1.1	2.4	48.7	46.6	5.8	13.8	3.5
Cerritos	5.7	6.9	0.3	62.2	12	16.6	3.9	17.7	4.8
Chatsworth*	18.5	0.9	1.3	1.1	92.5	5.3	8	8.4	N/A
Cherry Valley	9.4	1	1.6	1.5	21.2	73.5	3.7	29.1	8.4
Chula Vista	10.4	4.6	0.8	15	58.2	20.4	7.2	10	8.1
Cloverdale	5.9	0.6	1.8	1.2	32.8	62.5	6.6	16	9.5
Coalinga	23.6	4.1	1.3	3.3	53.5	37.7	8	7.9	14.7
Colton	22.5	9.7	1.3	5.3	71	13	9.4	7	10.1
Corona	9.9	5.9	0.8	10.3	43.6	38.1	7.4	7.3	4.4
Coronado	6.4	2.1	0.5	3.3	12.2	79.4	4.7	18.4	4.4
Costa Mesa	14.1	1.5	0.6	8.4	35.8	51.8	6.5	9.2	5.2

Cupertino	4.2	0.6	0.2	63.4	3.6	29.3	5.4	12.5	3.9
Eureka	22.1	1.9	3.7	4.8	11.6	73.9	6.1	11.8	9.1
Fallbrook	14.6	1.6	0.8	2.1	45.2	49.1	7.4	13.9	8.9
Felton	N/A	0.62	0.71	2	6.98	90.9	4.5	10.1	0
Ferndale	N/A	0.07	1.6	1.6	5.62	93.4	4.5	22.5	1.5
Fortuna	20.2	0.6	3.7	1	17	74.8	7.1	17.3	7.6
Fremont	5.8	3.3	0.5	51.1	14.8	26.5	7.1	10.2	4.8
Fresno	27.5	8.3	1.7	12.8	46.9	30	8.9	9.3	12.7
Glendale	12.9	1.3	0.3	16.7	17.4	61.5	4.8	15.6	7.7
Goleta	7.4	1.6	0.9	9.2	32.9	53.6	5.5	13.5	3.5
Guerneville	N/A	0.7	1.5	1.3	12.2	86.6	3.51	13.5	12.2
Half Moon Bay	7.6	0.7	0.6	4.4	31.6	61.6	6.3	15.6	5.1
Hawthorne	18.9	27.7	0.7	7.9	52.9	10.3	8	7.4	11.6
Hayward	13.5	11.9	1	25.1	40.7	18.8	7.5	10.2	7.4
Hemet	21.2	6.4	1.6	3.4	35.8	51.8	7.2	22.1	12
Hercules	6.2	18.9	0.4	45.9	14.6	16.7	5.8	10.5	5
Hollywood*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Huntington Beach	8.3	1	0.5	11.4	17.1	67.2	5.1	14.2	4.7
Indio	21.8	2.4	1	2.3	67.8	27	8.5	12.4	10.3
Irvine	11.4	1.8	0.2	39.4	9.2	45.1	5.7	8.7	4.4
Isla Vista	59.8	2.6	0.5	14.9	22.8	55.7	1.2	1.3	9.7
Jenner	N/A	1.5	0	1.5	5.9	91.9	0.7	22	N/A
Jurupa Valley	16.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Laguna Beach	7.4	0.8	0.3	3.7	7.3	85.7	3.3	18.3	4.3
Los Angeles	21.2	9.6	0.7	11.4	48.5	28.7	6.6	10.5	9.8
Los Gatos	5.4	0.9	0.3	11.1	7.2	77	4.7	17.9	4
Lost Hills	N/A	0.2	0.04	0.7	97.6	5.4	14.3	2.5	24.1
March Air Reserve Base	N/A	14.7	0.9	3.2	14.8	69.9	3.7	48.8	9.6
Marysville	26.4	4.3	2.5	4.4	24.2	61.3	7.7	12	12.4
McKinleyville	13.2	0.7	4.6	1.5	7.1	82.4	6.7	12.4	9.9
Menlo Park	6.5	4.8	0.5	10.3	18.4	62	7.7	14.3	4
Merced	27	6.3	1.5	12	49.6	30	9.4	8.8	15.9
Mission Hills	N/A	2.5	2	3.7	31.8	75.2	6.1	14.7	8.5
Modesto	19.5	4.2	1.2	7.3	35.5	49.4	7.4	11.7	11.5
Moreno Valley	19.6	18	0.9	6.7	54.4	18.9	8.4	6.3	11
Mountain View	8.2	2.2	0.5	26.5	21.7	46	7.1	10.6	4.5

Napa	11.3	0.6	0.8	2.5	37.6	57.2	6.6	13.6	6.4
North Hills*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
North Hollywood*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Northridge*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Norwalk	12.3	4.4	1.1	12.4	70.1	12.3	7	9.9	9.4
Novato	7.4	2.7	0.6	6.8	21.3	65.8	5.9	15.7	5.7
Oakland	20.3	28	0.8	17.4	25.4	25.9	6.7	11.1	10.2
Oceanside	11.8	4.7	0.8	7.9	35.9	48.4	7	12.9	6.6
Olivehurst	22.5	2.4	2.9	6.1	36.6	49.1	8.8	8.4	19.3
Ontario	16.4	6.4	1	5.5	69	18.2	8.4	6.7	9.9
Orange	10.7	1.6	0.7	11.6	38.1	46.8	6.4	10.7	5.4
Oxnard	15.9	2.9	1.5	7.7	73.5	14.9	8.9	8.3	9.9
Pacific Palisades*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Palm Desert	9.2	1.8	0.5	3.5	22.8	70.4	4.2	32.9	5.6
Palm Springs	15.9	4.4	10	4.6	25.3	63.6	3.9	26.5	7.3
Palo Alto	4.9	1.9	0.2	27.3	6.2	60.6	5.4	17.1	3.2
Paso Robles	12.2	2.1	1	2.2	34.5	59.1	7.8	13.4	7.4
Perris	28.2	12.1	0.9	4.5	71.8	11	10	4.9	14.9
Pescadero	N/A	0.3	0.3	0.8	62.5	48.8	7.3	12.3	N/A
Petaluma	9.1	1.4	0.6	4.7	21.5	69.4	6	13.1	5.6
Placerville	15.9	0.8	1.6	1	17.9	76.4	6.4	17.7	12.4
Pleasanton	4.6	1.7	0.3	23.4	10.3	60.8	5.6	10.9	3.3
Ramona	13.4	0.7	1.1	1.7	31.2	64	6.9	10.1	6.4
Rancho Cucamonga	5.8	9.2	0.7	10.7	34.9	42.7	6.2	7.9	6
Redding	18.1	1.2	2.3	5.7	8.7	81.3	6.3	16.4	9.6
Redwood City	9.1	2.4	0.7	11.7	38.8	44	7.5	10.6	5
Rio Dell	N/A	0.4	3.7	0.7	11.4	85	6.9	13	14
Riverside	17.5	7	1.1	7.8	49	34	7.2	8.6	9.6
Rohnert Park	12.8	1.9	1	5.6	22.1	66.2	5.6	9.3	6.1
Roseville	8.3	2	0.7	8.7	14.6	71	6.8	13.4	7.2
Sacramento	20.2	14.6	1.1	19.7	26.9	34.5	7.5	10.6	9.6
San Bernardino	30.6	15	1.3	4.4	60	19	9.3	7.9	12.6
San Carlos	3.4	0.8	0.2	11.7	10.1	73.2	6.6	14.2	3.4
San Diego	15.4	6.7	0.6	16.4	28.8	45.1	6.2	10.7	6.9
San Francisco	13.2	6.1	0.5	33.7	15.1	41.9	4.4	13.6	5.2
San Jacinto	18.9	6.6	1.8	3.3	52.3	35.1	8.8	10.6	14.5

San Leandro	8.5	12.3	0.8	30.5	27.4	27.1	6.2	13.8	6.6
San Luis Obispo	30.5	1.2	0.6	5.3	14.7	75.8	3.3	12	6.8
San Simeon	N/A	0.9	1	2	55.8	58.4	8	18	N/A
Santa Barbara	14.7	1.6	1	3.6	38	54.8	5.5	14.2	5
Santa Clara	9	2.7	0.5	38.5	19.4	36.1	7.8	10	5.6
Santa Cruz	20.9	1.8	0.7	7.9	19.4	66.7	3.9	8.8	9.1
Santa Nella Village	N/A	1.6	1.8	2.25	70	60	8	6.7	N/A
Santa Paula	17.3	0.5	1.6	0.8	19.5	18.5	8.7	10.6	12.1
Santee	8.5	2	0.8	4.3	16.3	73.6	6.6	10.7	5.8
Simi Valley	6.6	1.4	0.6	9.4	23.3	52.8	6.1	10.6	5.9
South Lake Tahoe	17.5	0.9	1.1	5.7	31.1	59.9	6.3	9.8	11.4
St. Helena	7.2	0.4	0.6	1.9	32.9	63.4	5.4	19.3	6.6
Stanford	19.8	4.7	0.6	27.6	10.4	50.2	2.9	4.5	N/A
Stinson Beach	N/A	0.5	1.3	2.3	5.2	92	2.2	21.3	N/A
Stockton	23.3	12.2	1.1	22.1	40.3	22.9	8.4	10	15.9
Sunnyvale	7.2	2	0.5	41.4	18.9	34.5	8	11.2	5.2
Sunol	N/A	0.1	0.7	5.3	10	85	3	16.4	6.9
Sylmar*	N/A	9.6	0.7	11.4	48.5	28.7	6.6	10.5	N/A
Temecula	8.9	4.1	1.1	10.2	24.7	57.2	7	7.8	6.4
Torrance	7.4	2.7	0.4	34.9	16.1	42.3	5.2	14.9	4.4
Trinidad	N/A	0.5	4	0.7	3	90	3.5	19.3	5.7
Tulare	20.2	3.9	1.2	2.3	57.5	34.7	9.4	9	12.9
Ventura	10.3	2.2	1.8	7.6	41.2	47.7	6.6	12.6	N/A
Vista	15.2	3.3	1.2	4.9	48.4	408	8	9.2	7.8
Wheeler Ridge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Willow Creek	N/A	0.6	0.5	0	6.3	86.4	6	18.4	6
Wilmington*	21.2	9.6	0.7	11.4	48.5	28.7	6.6	10.5	9.8
Yountville	N/A	1.9	0.8	0.8	9.9	84	18.2	2.2	4.4

Source: Energy Commission staff analysis

<http://quickfacts.census.gov/qfd/states/06/0660018.html>

http://www.labormarketinfo.edd.ca.gov/CES/Labor_Force_Unemployment_Data_for_Cities_and_Census_Areas.html

APPENDIX C:

Estimated Gasoline Gallons Displaced

Application Number	Applicant	Number and Type of Chargers	Vehicle Capacity (total number of vehicles that can charge at the same time)	Estimated Total Electric Vehicle Miles Per Year ⁴ (2015 vehicle population)	Estimated Total Gasoline Gallons Displaced ⁵ Per Year
Category I – Destination Charging, Corridor Charging, Workplace Charging with Public Access					
47	Vehicle Grid Integration Alliance	25 L2 Destination/MUD	25	379,455	15,877
46	EV Alliance	39 L2 Destination	78	1,183,898	49,535
20	Calif. EV Alliance	37 L2 Destination	74	1,123,185	46,995
29	City of Burbank	8 L2 Destination	Minimum of 8	33,799	5,081
24	County of Riverside	30 L2 Public Access Workplace 8 L2 Destination 7 L2/DCFC Destination & Corridor	80 for L2 7 for DCFC	1,877,348	78,550
17	Fremont Chamber of Commerce	10 L2 Public Access Workplace 2 DCFC Corridor	10 for L2 2 for DCFC	341,327	14,278
25	Silicon Valley Leadership Group	39 L2 Destination	78	1,183,898	49,535
5	Redwood Coast Power Authority	9 L2 Destination and Public Access Workplace	Minimum of 9	204,905	8,573
33	BAAQMD	12 L2 Destination 10 DCFC Corridor	12 for L2 minimum of 10 for DCFC	1,228,878	51,417
21	South Coast AQMD	6 DCFC Destination/Corridor	6	568,366	23,781
42	EPRI	48 L2 Destination	48	728,553	30,483
18	CSU Fresno Foundation	4 L2 Destination 2 DCFC Destination	6	155,440	6,504
23	Good Samaritan Hospital	15 L2 Public Access Workplace 9 L2 Destination	24	307,358	12,860
9	Adopt A Charger	11 L2 Destination 1 L2 Destination/Workplace	12	182,138	50,699
3	LADWP	104 L2 Destination	104	1,578,531	66,047
40	US Green Vehicle	10 DCFC Corridor	10	325,707	13,628

⁴ Default is 365 days per year for Destination, Corridor, and Public Access Workplace in Category I, unless specific restrictions were identified. Default is 251 days per year in Category II. Default is 365 days per year in Category III.

⁵ 23.9 miles per gallon for equivalent gasoline vehicle displaced

	Council				
10	San Joaquin Valley Unified APCD	5 L2 Public Access Workplace	5	56,918	2,382
13	Golden Gate National Parks Conservancy	2 L1 Public Access Workplace 4 L2 Destination	2 for L1 4 for L2	91,030	3,809
43	City of San Diego	41 L2 Destination	68	1,032,116	43,185
15	County of San Diego	35 L2 Destination/Public Access Workplace	35	531,236	22,227
22	City of Corona	9 L2 Destination/Public Access Workplace	18	273,207	11,431
4	Southern California Public Power Authority	4 L2 Destination 9 DCFC Destination/Corridor	5 for L2 9 for DCFC	502,165	21,011
8	Cal Poly Corporation	6 L2 Destination	12	182,138	7,621
30	CALSTART	38 L2 Destination	38	576,771	24,133
44	City of Coronado	10 L2 Destination	10	94,864	3,969
35	El Dorado County	5 L2 Destination	10	75,891	3,175
2	LA County MTA	20 L2 Destination	20	189,727	7,938
26	City of Torrance	6 DCFC Corridor	6	284,183	11,890
Category II – Workplace Charging					
41	Clean Fuel Connection	50 L2 Workplace	50	260,940	10,918
31	American Honda Motor Company, Inc.	116 L2 Workplace	116	605,381	25,330
7	US Hybrid Corporation	2 L2 Workplace 1 DCFC Workplace	3	43,008	1,800
37	State of Calif., Dept. of Transportation	22 L2 Workplace	22	114,814	4,804
14	Bio-Rad Laboratories	22 L2 Workplace	22	114,814	4,804
32	Ontario CNG Station Inc.	2 DCFC Workplace	2	65,141	2,726
Category III – Charging for Multi-Unit Dwellings					
45	Granville Homes	3 L2 MUD	6	31,313	1,310

Source: Energy Commission staff analysis.